

REMARKS

Claims 1-5 are pending in this application.

Claim 1 is amended.

Claims 4 and 5 are withdrawn without prejudice or disclaimer of subject matter.

Accordingly, claims 1-3 are pending upon entry of the present amendment.

In applicant's Response After Final Rejection Pursuant to 37 CFR § 1.116 dated March 25, 2003, applicants requested amendment to claims 1, 2 and 4. These amendments were not entered as provided in the Advisory Action mailed April 11, 2003. Accordingly, the present claim amendments are based on the claims of applicants' amendment dated October 8, 2002.

The claims are amended to incorporate the subject matter of claim 5 into claim 1, and to render more definite the subject matter of claim 2. Support for the amendment to claim 1 and 2 is supported by the specification, claims and drawing of the present application. No new matter is provided in this amendment.

Reconsideration is requested in view of the above amendments and following remarks.

The Present Invention

Applicants' claimed invention is a rack for use in a compound handling system for handling a multiplicity of tubes containing aliquots of chemical or biological samples. The rack comprises a single piece frame, storage compartments within the frame, and means for retaining a sample tube within each of the storage compartments. The single piece frame has a top side and a bottom side, both capable of receiving the sample tube. The storage compartments within the frame are each configured and dimensioned to receive a sample tube containing a chemical or biological sample. The storage compartments are adjacent to each other and defined by separation walls between them. Each of the

storage compartments has an inner wall and is open at the top side of the frame and open at the bottom side of the frame so that a sample tube is insertable into the storage compartment from both the top side of the frame and the bottom side of the frame, and is removable from the storage compartment from both the top side of the frame and the bottom side of the frame with one and the same orientation of the sample tube with respect to the frame. The means for retaining a sample tube within each of the storage compartments are an integral part of the frame. The retaining means comprises a projection of the inner surface or the wall of each storage compartment, the projection being suitable for snapping between two ridges of the outer wall of a sample tube that is positioned within the storage compartment.

The Prior Art

Leoncavallo does not disclose any storage compartments for a sample tube, but only openings or cutouts 24 of a shelf 12 through which a sample tube can be inserted. These openings are associated with retaining means 34. However, the retaining means disclosed by Leoncavallo do not retain a sample tube at a predetermined position, but at any position within a predetermined range. Moreover, Leoncavallo only discloses insertion of a sample tube into openings 24 from above (see column 3, lines 39-41, and Fig. 7). Nowhere does Leoncavallo even hint at inserting a sample tube into openings 24 from below. In fact, insertion of the tubes from below is not possible with the shapes of the tubes and the shapes of the retaining means disclosed by Leoncavallo. Leoncavallo fails to teach or suggest adjacent storage compartments adjacent to each other and defined by walls between them. Leoncavallo further does not teach or suggest projections in the inner surface of the wall of each storage compartment in which the projection being suitable for snapping between two ridges of the outer wall of a sample tube that is positioned within the storage compartment.

Schwartz does not disclose storage compartments for sample tubes, but openings or cutouts of a base plate 11 through which sample tubes can be inserted. These

openings are not adjacent to each other and are not defined by separation walls between them, as is required in applicants' claim 1. The openings shown by Figures 14-17 of Schwartz have retaining means 24, 25, 51, but these retaining means do not retain a sample tube at a predetermined position. Like Leoncavallo, retention of the sample tube is at any position within a predetermined range. Column 1, lines 41-44, points out as aim the possibility of arresting the workpiece (e.g. a sample tube) at different levels. Column 6, lines 14-17, points out the need for an abutment for the workpiece so that it can be positioned exactly. Furthermore, as with Leoncavallo, Schwartz only discloses insertion of a sample tube into compartment 14 from above, not from below. Insertion of the tubes from below is not possible with the shapes of the tubes and the retaining means disclosed by Schwartz. Schwartz does not teach or suggest adjacent storage compartments adjacent to each other and defined by walls between them. Schwartz also does not teach or suggest projections in the inner surface of the wall of each storage compartment in which the projection being suitable for snapping between two ridges of the outer wall of a sample tube that is positioned within the storage compartment.

Berthold discloses a specimen rack composed of a block having a matrix-like arrangement of MXN through chambers, into which MXN cuvettes can be inserted, individually or in the form of strip-racks. There is no teaching or suggestion in Berthold to provide for projections in the inner surface of the wall of each storage compartment in which the projection being suitable for snapping between two ridges of the outer wall of a sample tube that is positioned within the storage compartment. Berthold does not teach or suggest that the sample tube can be inserted through both the top and the bottom side of the frame with one and the same orientation of the sample tube with respect to the frame.

Verwohlt discloses a microtiration system that comprises a plurality of well and frame-like holder with apertures for receiving the wells. The dimension and the shape of each aperture are such that when a well is inserted into the aperture, the aperture

defining means is engaging with the outer surface of the well side wall and is pressed radially outwardly in relation to a central axis of the well till the aperture defining means may snap into locking engagement with the depression or groove formed in the side wall of the well. However, Verwohlt fails to teach or suggest compartments that allow insertions of sample tubes through both the top and the bottom opening of each compartment.

Remarks Responding To Claim Rejections

Applicants urge the Examiner to reconsider and withdraw the claim rejection.

With regard to item 2 of the Advisory Action, specifically, the reason why examiner did not enter the amendment (from applicants' Response After Final Rejection Pursuant to 37 CFR § 1.116 dated March 25, 2003), applicants have withdrawn claim 4, without prejudice.

With regard to item 10 of the Advisory Action, applicants traverse this rejection on the basis of the present claim amendment and the following reasons. The Advisory Action contends that Leoncavallo and Schwarz disclose racks which also have compartments capable of receiving sample tubes from the top and bottom side of the frame with one and the same orientation of the sample tube with respect to the frame. However, applicants respectfully submit that Leoncavallo and Schwarz simply do not teach or suggest this. As can be seen from the drawings of these references, the sample tubes disclosed therein have a rounded bottom and a cylindrical top opening. The shapes of the top and bottom parts of these sample tube are thus different. The retaining means disclosed by Leoncavallo and Schwarz fail to allow that introduction of the sample tube into a compartment if the tube's orientation is such that the top end of the tube enters first into the compartment.

The Advisory Action also argues that Verwohlt in combination with Leoncavallo or Schwarz suggests the features of claim 1, by stating that the retaining means "comprise a

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projection of the inner surface of the wall of each storage compartment, said projection being suitable for snapping between two ridges of the outer wall of a sample tube that is positioned into the storage compartment". Verwohlt fails to disclose a rack having a compartment of any kind defined in claim 1. In view of this and the above comments on the disclosure of Leoncavallo and Schwarz, the Advisory Action's suggestion that the combination of the teachings of the references cited lacks proper basis and appears to be based on hindsight.

In view of the above, applicants request reconsideration of the claim rejections, withdrawal of the rejections, and the issuance of a Notice of Allowance.

If a telephone conference would be of assistance in furthering prosecution of the subject application, applicants request that the undersigned attorney be contacted at the number below.

No fee is required in connection with the filing of this Amendment. If any fees are deemed necessary, authorization is given to charge the amount of any such fee to Deposit Account 08-2525.

Respectfully submitted,

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